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SCHEDULE OF MEETINGS

1-2 May	**Joint Committee on Health Policy, UNICEF/WHO, sixth session, Geneva**
5-23 May	**Sixth World Health Assembly, Geneva** Among the subjects on the agenda of the Assembly are consideration of rejections and reservations submitted by governments in respect of their overseas and outlying territories in accordance with Article 106 of the International Sanitary Regulations (WHO Regulations No. 2); report of the Executive Board on its reconsideration of relations with non-governmental organizations; report of Executive Board on the organizational study relating to regionalization; appointment of the Director-General and approval of his contract; and technical discussions at future Health Assemblies.
28 May	**Executive Board, twelfth session, Geneva**

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EXECUTIVE BOARD: ELEVENTH SESSION

The Executive Board was faced with two particularly important problems at its eleventh session (12 January-4 February 1953) : the financial position of WHO as a participating agency in the United Nations Technical Assistance programme, and the nomination of a new Director-General.

Technical Assistance Programme

Dr. M. Jafar (Pakistan), Chairman of the Board, in his opening address sketched the situation with regard to the Technical Assistance programme. WHO had based plans and begun programmes on the assumption that substantial Technical Assistance funds would be allocated to it. Now, as a result of an examination of the working of the Technical Assistance programme by a special commission, the Organization had been asked by the Technical Assistance Board (TAB) to reduce expenditure on existing and future projects. Dr. Jafar felt that health had, in this examination, been given a relatively low priority in the development of the economic and social aspects of life, which were, it would seem, dependent upon the proper development of health. WHO had made an excellent start in reaching areas, sometimes "far-flung" and "untouched", where millions were living in misery and ill health, and a readjustment of the Organization's programme would deprive these people of aid which they had begun to think was close at hand. In addition, it would be difficult to tell governments which had provided counterpart funds for all projects already planned that WHO could no longer meet its commitments. The Organization could not continue to work in this state of uncertainty, and the Board was urged to present its views forcefully before the United Nations Economic and Social Council.

A working party was formed to consider the whole question of Technical Assistance and to formulate resolutions for the Board's adoption. The resulting resolutions expressed the Board's concern with regard to certain administrative developments, such as (1) the responsibility given to the Executive Chairman of the TAB, and to the TAB, to examine and approve programme proposals and projects submitted by WHO, and to appraise the effectiveness of programmes which are technically the responsibility of the Organization; (2) the costs involved in maintaining the complicated administrative structure of the Technical Assistance programme; and (3) the advisability of appointing Resident Technical Assistance Representatives, in view of the present financial situation and, in particular, of the fact

that it is WHO's constitutional responsibility to serve as the directing and co-ordinating authority on international health work. The Director-General was requested to bring the views of the Executive Board on these administrative matters to the attention of the TAB and to continue to carry out WHO's part of the Technical Assistance programme with the greatest possible economy in central administrative and indirect operational costs, so that any savings which might be realized on the amount earmarked for the Organization for these purposes might be used for health projects.

In addition, after considering the financial resources available, or expected to be available, for the Technical Assistance programme in 1953, the Board authorized the Director-General to continue all projects and activities at present in operation and to proceed with the implementation of those projects not yet started for which certain commitments had already been made. It also requested that he call the attention of the TAB and its Executive Chairman to the desirability of (1) making governments aware of the critical financial situation, (2) requesting the participating organizations to arrange jointly to concentrate and co-ordinate their efforts to obtain increased contributions from governments, and (3) considering the possibility of a campaign to raise additional funds by an appeal to the general public.

Reviewing the development of the health aspects of the Technical Assistance programme as a whole, the Executive Board extended and amplified the priorities adopted at its sixth session, according to the following criteria :

1. Assistance in the health field should be designed primarily to strengthen the basic health services of the country and to meet the most urgent problems affecting large sections of the population, with due regard to the stage of social or economic development of the country concerned.

2. Efforts should be directed towards measures of preventive as compared with curative medicine, recognizing fully that the line between preventive and curative medicine is a tenuous one, and that, for the development of optimal health programmes, in some instances activities more directly related to curative medicine must be undertaken.

3. Professional and technical training and education, including assistance to educational institutions and fellowships directly related to projects for economic and social development, preferably a part thereof, should form essential elements of the programme. Emphasis must be laid on the training of nurses and auxiliary personnel in giving assistance to national training schemes for the development of national and regional training programmes as particularly needed by the underdeveloped countries.

4. Control of major communicable diseases should be directly related to improving the health of the population for productive purposes.

5. Development and improvement of the standard of environmental sanitation is essential for the improvement of health and the raising of the standard of living, especially when undertaken in relation to social, industrial, or agricultural schemes.

6. Other basic factors for the promotion of a healthier, and therefore a more productive, population should include such measures as health education of the public, improvement of maternal and child health, and nutrition.

7. Measures should be taken to mitigate the probable consequences of economic changes concurrent with economic and social development. Social and occupational health measures must not, therefore, be ignored.

8. Demonstration and pilot projects of limited duration, applying new methods and techniques and designed to act as catalysts and to produce an impact on the country should be undertaken, since they offer an effective means of quick and successful transfer of knowledge.

Attention was again called to the importance of equitable geographical distribution of the assistance which can be made available to countries, taking into account their ability to absorb such assistance.

Nomination of Director-General

The second item of great importance before the Board was the nomination of a successor to Dr. Brock Chisholm, Director-General. The members of the Board paid tribute to the role which Dr. Chisholm had played in the growth of WHO and expressed the Organization's debt to him.

According to the WHO Constitution, the Director-General is to be appointed by the Health Assembly on the nomination of the Executive Board. The nomination of a successor to Dr. Chisholm was complicated by the fact that the Rules of Procedure contain no precise directive for voting on this matter, and that the procedure adopted would therefore establish a precedent. After considerable discussion, the Board decided that

(1) a list of candidates should be established by secret ballot and the names presented in alphabetical order;

(2) a series of secret ballots should be taken, each member of the Board writing down the name of a single candidate which he would choose from the list of candidates which had been established. The name of the candidate who received the least number of votes would then be eliminated at each balloting;

(3) when the number of candidates had been reduced to two, there would be as many ballots as were necessary to secure a majority for either candidate. In the event of a tie between the remaining candidates after three votes, the whole procedure was to start again.

In a secret session of the Board, Dr. M. G. Candau (Brazil), Assistant Director of the Pan American Sanitary Bureau, was nominated for the post of Director-General. His name will therefore be presented to the Sixth World Health Assembly.

Programme and Budget

The Board, at its tenth session, had decided that it would not maintain a separate Standing Committee on Administration and Finance in its consideration of the programme and budget for 1954. Thus at this, its eleventh, session the entire Executive Board constituted itself a " Standing Committee on Administration and Finance " and, in plenary session, reviewed the proposed programme and budget in considerable detail, with the aid of working parties as required. It approved a programme which continues present activities, within the framework of a four-year plan for world health, and a regular working budget for 1954 in the amount of $8,547,202, which represents an increase of 0.73% over the budget for 1953.

Further Action on General World Health Problems

In a report to the Board, the Director-General drew attention to the need for the advisory services provided to governments to be integrated into wider regional—or even world—programmes. It was felt that WHO had reached a stage at which it should give more emphasis to its role, in co-operation with all governments, of tackling world health and medical problems not only through the necessary and valuable form of direct assistance to governments, but also through concerted international action. Accordingly, the Board recommended that the Sixth World Health Assembly consider adoption of the Director-General's suggestion that WHO should stimulate certain worldwide programmes and that a campaign against smallpox would be suitable for such a programme. The Director-General was requested to submit to the Assembly a study on ways of carrying out such a campaign.

Other Business

The Board undertook two special studies during this session—one on regionalization, and the other on education and training programmes. It was recommended that the subject for study at the thirteenth session should be " Programme Analysis and Evaluation ".

With regard to regionalization, the Board expressed its satisfaction with the development of the organizational structure and functioning of the

regional offices; recommended that, as from 1955, WHO should reimburse the travelling expenses of delegates to the regional committee meetings (for one representative from each Member State and each Associate Member); and suggested that regional committees should meet at regional headquarters every alternate year to limit the cost of the meetings.

The problem of the rules and criteria to be adopted for determining the assignment of territories to WHO Regions was referred to the Health Assembly. The Board expressed regret that the Regional Committee for the Eastern Mediterranean was again unable, for non-technical reasons, to convene a session in 1952, and requested that the Director-General ask the Member States of the Region to express their views on the situation and to suggest solutions. This question, too, is to be placed before the Sixth World Health Assembly.

Another problem, which gave rise to considerable discussion, was WHO's relationship with non-governmental organizations. It was decided, however, that there were aspects on which the Assembly alone was competent to take a decision, and the Assembly was therefore invited to consider this problem.

Among the numerous other items discussed by the Board were :

(1) the work of the Tuberculosis Research Office on BCG vaccination, which was praised and concerning which further co-operation with other interested groups was recommended;

(2) technical discussions at future health assemblies;

(3) facilitating the resumption of active participation by Nationalist China in the Organization, by accepting " an extraordinary reduced contribution "; and

(4) reports of expert committees—on bilharziasis, brucellosis (joint FAO/WHO), influenza, hepatitis, venereal infections and treponematoses, occupational health (joint ILO/WHO), biological standardization, International Pharmacopoeia and its subcommittee on non-proprietary names, and professional and technical education of medical and auxiliary personnel.

Final decisions on many of the questions considered by the Executive Board will rest with the Sixth World Health Assembly. A complete account of the Board's work at its eleventh session has been published in No. 46 of the *Official Records of the World Health Organization.*

* * *

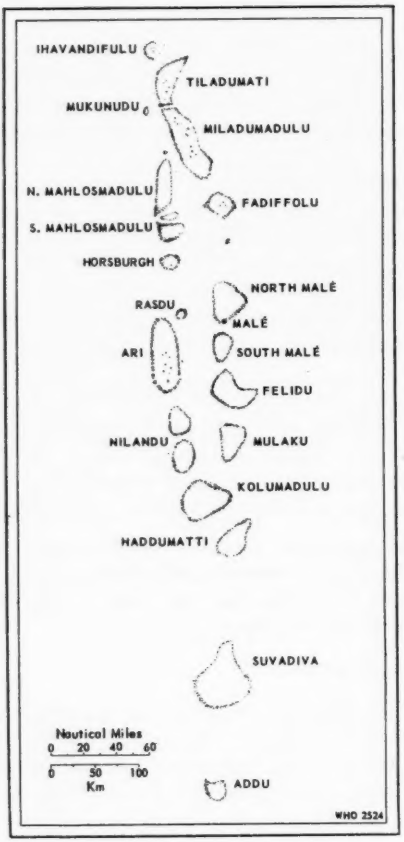
The Board bid farewell to its Chairman, Dr. M. Jafar, and to the other five members whose three-year mandate expires in May—Dr. J. Allwood-Paredes (El Salvador), Dr. A. L. Bravo (Chile), Professor G. A. Canaperia (Italy), Dr. S. Daengsvang (Thailand), and Professor J. Parisot (France).

The next session of the Board will begin on 28 May 1953, in Geneva.

FILARIASIS SURVEY IN THE MALDIVE ISLANDS

A striking example of WHO aid which has reached " far-flung, untouched areas " is furnished by the survey of filariasis which was conducted by a three-man team in the Maldive Islands, 420 nautical miles (780 km) south-west of Ceylon. These 2,000 islands, of which only 213 are inhabited, are grouped in 19 atolls of different sizes, separated from one another by stretches of the Indian Ocean. They are inaccessible to the ordinary traveller inasmuch as there is no steamer service ; all travel and transport are by means of small sailing boats which ply between Ceylon and the islands, and among the various atolls.

FIG. 1. FILARIASIS SURVEY IN THE MALDIVES

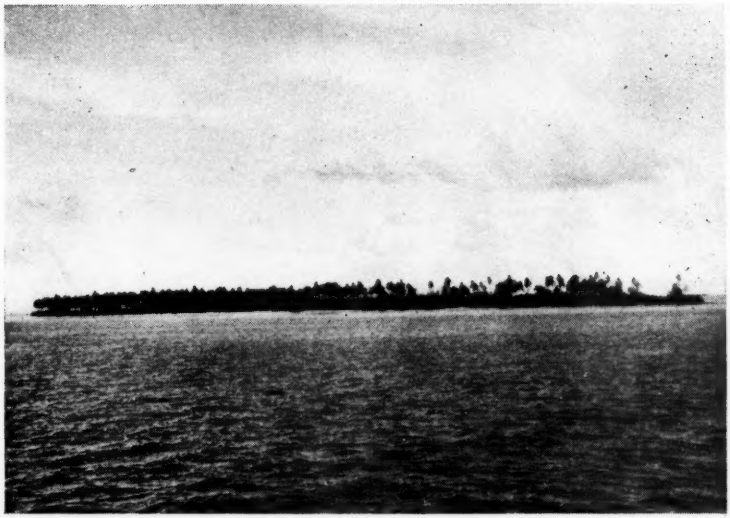


Maldive archipelago

To accomplish its survey of 34 islands and villages scattered among five different atolls, the WHO team utilized a schooner (see fig. 3 and 4) provided by the Maldivian Government, visiting as many islands as the prevailing wind facilitated. The expedition nearly ended in disaster when, in an attempt to sail to Ceylon after the investigation had been completed, the small craft was caught in a cyclone which lasted 42 hours. After fifteen days at sea, the schooner succeeded in regaining Malé, the capital of the Maldives. The team members were eventually taken to Karachi by a steamer which deviated from its course to pick them up. An account of the investigation and its findings has been written by the leader of the WHO team, Mr. M. O. T. Iyengar, of Calcutta, and has been published in the *Bulletin of the World Health Organization.*[1]

[1] *Bull. World Hlth Org.* 1952, 7, 375

FIG. 2. FILARIASIS SURVEY IN THE MALDIVES



Magaddu, one of the islands of Suvadiva Atoll, viewed from the lagoon

Investigation Procedure

The investigation of the WHO team included a house-to-house survey, at night, of a representative sample of all population groups, in which physical examinations were made and blood-smears taken, and a study of mosquitos, made during the day. Records were maintained of every person examined, these giving the name, age, sex, occurrence of signs of filarial disease, and presence of microfilariae in peripheral blood taken at night. The field mosquito-surveys consisted of examination of water-collections for mosquito breeding, collection of adult and larval mosquitos to determine the relative incidence of the different species, and studies of the bionomics of the mosquitos.

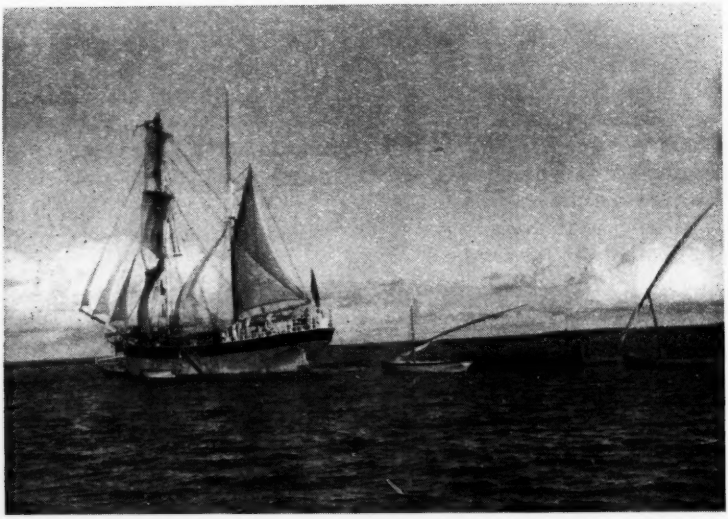
A small laboratory was set up in the cabin of the schooner. There, blood-smears were examined, larval and adult mosquitos were identified, and dissections of adult female mosquitos were made to determine the vectors and their natural-infection rates.

Findings of the Survey

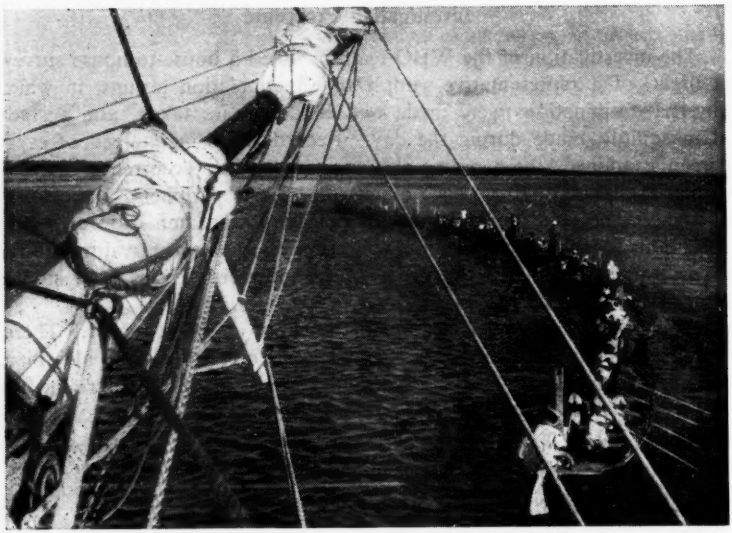
The disease

The investigation showed that filariasis is endemic in the three southern atolls of the Maldives—Haddumatti, Suvadiva, and Addu. Out of 3,950

FIG. 3–4. FILARIASIS SURVEY IN THE MALDIVES



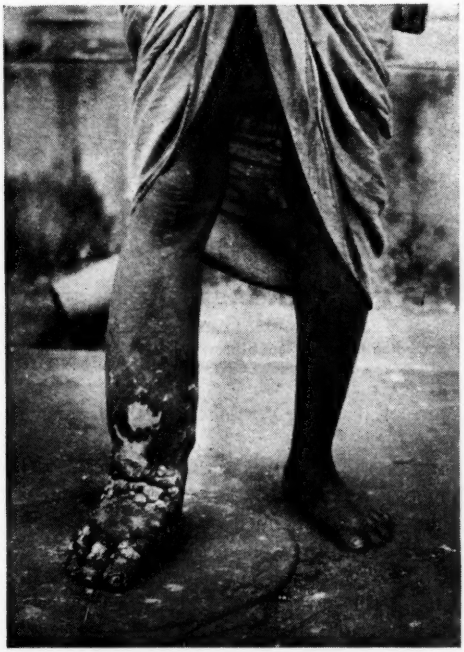
The schooner in which the WHO team travelled from island to island



Twelve row-boats towing the schooner from one part of the lagoon to another in Suvadiva Atoll. Owing to lack of wind, the schooner had to be towed on several occasions

persons examined during the survey, 939 cases of filariasis were recorded. Elephantiasis of the leg was the most common manifestation of the disease (fig. 5), although there was a high incidence of genital affections among the males. Night blood-smears of 3,828 persons revealed a gross filarial-infection rate of 17.9 %.

FIG. 5. FILARIASIS IN THE MALDIVES



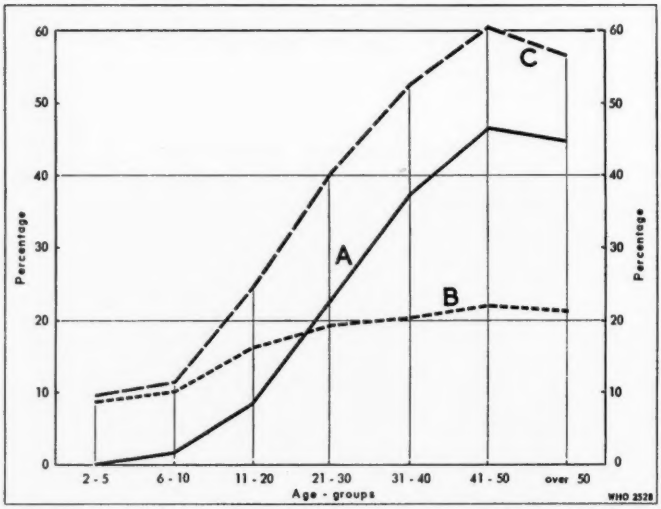
Elephantiasis (advanced stage) of right leg

The filarial-disease rate showed a progressive rise with age (see fig. 6). It was found that filarial infection occurred at a much earlier age than filarial disease, and that there was a rise with increase in age up to the 21-30-year age-group, after which the curve tended to flatten out.

The cause

Filarial infection in the Maldives is due to *Wuchereria bancrofti.* In the study of the 13 species of mosquito which were found on the islands, 6 species were observed to be naturally infected with filaria larvae. The observations indicated that *Culex fatigans* and *Anopheles tessellatus* were

FIG. 6. FILARIASIS IN THE MALDIVES



Incidence, according to age-group, of filarial disease (A), filarial infection (B), and filarial endemicity (C)

the efficient vectors of *W. bancrofti* infection, the former being of primary importance.

The conditions in the Maldives are such that normally there would be little breeding of *C. fatigans* and, consequently, little or no endemic filariasis. The high filarial endemicity is due to conditions, entirely man-made, which favour intensive breeding of the vector *C. fatigans*—namely, the creation of step-wells (see fig. 7) and the contamination of these wells with organic matter. There was found to be a definite correlation between the number of step-wells and the filarial-endemicity rate in a village. Other factors which contribute to the high endemicity observed in the southern atolls of the Maldives are that climatic conditions are such that transmission of the infection is possible throughout the year, and that the breeding-places—the step-wells and wells—are perennial and hold water even during the dry season.

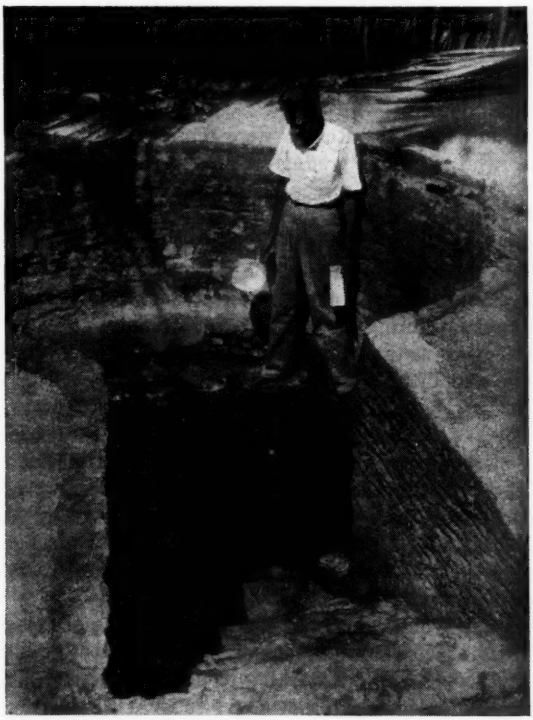
Control Measures

It was found that a system of segregating cases of elephantiasis of the leg was enforced in the Maldives as a means of controlling the disease, the inhabitants mistakenly believing that the disease was contagious—that even to walk where a diseased foot had trodden would bring on filariasis. This segregation, which meant the isolation of persons with elephantiasis

in camps on the outskirts of the villages, caused considerable hardship to those concerned, and to their relatives and dependants as well.

The WHO team called the attention of the authorities to the complete uselessness of segregating cases of elephantiasis and was able to suggest simple and economical measures for control of the disease. Since control

FIG. 7. FILARIASIS IN THE MALDIVES



A step-well, breeding-place of the principal vector of filariasis in the Maldives. The subsoil water is fairly high—about 4 feet (1 metre) from ground level

must be based on preventing the transmission of filarial infection, the problem is one of controlling the insect vector. It is believed that this can be achieved in the Maldives by (1) filling up all the step-wells, which are the breeding-places of *C. fatigans*, and (2) mosquito-proofing all ordinary wells, where *A. tesselatus* may breed.

NURSING EDUCATION SEMINAR IN TAIWAN

A need for a seminar on nursing education in the Western Pacific Region was first felt in early 1951, when the WHO Regional Nursing Adviser visited various countries and was asked questions regarding nursing practice and training elsewhere in the Region. Plans began to be formulated for affording nursing leaders and teachers an opportunity to meet and discuss their common problems, in the hope of finding some solutions and of learning from each other. Final fruition came in November 1952 when a " workshop " on nursing education was held in Taipei, Taiwan, under the sponsorship of WHO and with the Government of China (Taiwan) acting as host.

Eleven countries of the Region were represented by the 29 seminar-participants, who were all graduate registered nurses actively engaged in nursing education. The three-week seminar proper was preceded by two weeks' training of nine of the participants, who constituted a " pre-planning committee " and who met to become familiar with the workshop procedure and to discuss plans for the seminar. Members of this committee formed a nucleus of leaders to direct the study-groups which were subsequently set up during the course of the seminar.

The problems to be treated at the seminar were decided upon by exploratory groups and by general discussion. They narrowed down to four major subjects : (1) training nurses in underdeveloped areas or among primitive people, (2) curriculum-planning based on local needs and goals, (3) teaching methods, and (4) interpersonal relationships. Each individual participant chose one of these subjects for study, and groups were established, ranging in size from four to nine persons. Each study-group worked independently, setting up its own organizational plan and arranging its own time schedule. Field trips and visual aids were used, and various teaching materials were demonstrated.

The first study-group, which considered the training of nurses in underdeveloped areas, asked questions such as, To what extent does the cultural pattern of the people who are working to develop nursing in a particular country influence the leadership they give ? and What knowledge and skills are needed by nurses in countries which are just beginning to improve nursing education and services ? It was concluded that long, detailed study would be necessary to improve the status of nursing in underdeveloped areas and that answers to the fundamental questions which were posed would differ from place to place.

In the discussions of the second group, on curriculum-planning, the central objective was " to consider the principles of a balanced curriculum ", taking into account the number and the educational standard of the students available, the teaching facilities, the socio-economic and cultural background of the students, and, most important, the necessity for educat-

ing a nurse to meet the needs of her community. Three problems were dealt with in detail :

(1) Correlation of theory and practice. It was felt that the most essential part of a student nurse's training is obtained in the ward, not in the classroom, and that the ideal way to teach clinical nursing is to centre it around the patient.

(2) Supervision of students in practice, for the improvement of nursing care. This supervision was defined as a " process of ' working together ' between the supervisor and the student for common goals "; for helping the student to achieve " independent thinking, sound judgement, intellectual resourcefulness, and self-mastery "; and for stimulating her " to grow and develop in effectiveness ".

(3) Integration of social and public-health aspects of nursing into the basic curriculum. It was concluded that the integration of these aspects of nursing could be effected by taking the curriculum as it stands and calling attention to relevant factors in each subject as it is taught and practised.

The third study-group based its discussions of teaching methods on the following definition of nursing : " Nursing in its broadest sense may be defined as an art and a science which sees the patient as a whole—body. mind, and spirit; promotes his physical, mental, and spiritual health by teaching and by example; emphasizes health education and the preservation of health as well as the care of the sick; involves the care of the patient's environment—social and psychological as well as physical; provides for the health care of the family, the community, and the individual." The goal of nursing education was considered to be to produce a nurse capable of carrying out the duties which this definition implies. Ways of achieving this goal were outlined, including methods of promoting the development of the desired attitudes, and of teaching the basic theory and skills which nursing requires.

The meetings of the fourth study-group, on interpersonal relationships, were essentially a sort of short course in mental hygiene. Discussions were centred on two major subjects : interpersonal relationships involving the people with whom the nurse must often work, and the creation of an environment in which the personality of the student nurse may be given an opportunity to develop fully. To get the viewpoint of another representative of the medical team of which the nurse is a part, this group invited a doctor to participate in one of its sessions.

Among the conclusions which were reached at the seminar, and which were expressed primarily in the reports of the study-groups, were the following :

1. Since nursing is an integral part of the community in which it is being developed, it is essential that nursing education be based upon the

situation and needs in the particular country. Therefore, curriculum, teaching methods, and teaching materials cannot be taken from one place and transplanted in another. They need to be based on the actual functions the nurse is called upon to perform.

2. If student nurses are to become good nurses, they should practise in situations where nursing care and nursing service are of the highest quality attainable in the country, since students learn more from what they see practised than from what they are taught in the classroom. This means that nursing service, nursing service administration, and hospital administration need to be developed concurrently with nursing education.

A high quality of nursing is possible only when (*a*) harmonious working relationships and team-work exist, (*b*) there is a sufficiently large staff of qualified nursing personnel, (*c*) lines of responsibility and authority are clearly defined, (*d*) individuals in the organization participate in the formulation of policies which govern them, and (*e*) supplies and equipment are adequate.

A special effort was made to evaluate the effectiveness of the workshop method of teaching in a seminar of this kind; it was generally agreed that it had provided a valuable learning experience. This, the first workshop on nursing education in the Western Pacific Region, served as a " proving ground " for future seminars utilizing the same approach.

Reports of Expert Groups

INFLUENZA

" Influenza is one of the most important infectious diseases still unconquered. Even in its present relatively mild form it can cause great economic loss and dislocation of essential services, especially as its ill effects are commonly concentrated within a few weeks." Observations and recommendations regarding the influenza viruses and the prevention and control of the disease are contained in the first report of the Expert Committee on Influenza, which has appeared as No. 64 in the *Technical Report Series*.[1]

[1] *World Hlth Org. techn. Rep. Ser.* 1953, **64**. Published in English and in French. Price: 1/6, $0.20, or Sw. fr. 0.80

Study of Influenza Viruses

Strains

There is a wide range of antigenic variation in the influenza virus strains isolated thus far; they appear to have no stability in nature, and the mechanism by which new variants emerge is not known. Strain differences were first recognized in 1938; knowledge concerning the nature and properties of the strains responsible for previous epidemics is incomplete.

Despite different methods of studying antigenic properties of the viruses and the lack of a standardized procedure for antigenic analysis of strains, general agreement has been reached on a classification of the viruses now known; adoption of this classification is recommended by the committee. The viruses are classified into three main groups (A, B, C), which are subdivided into groups named after their prototype viruses and the date of their isolation :

Virus A	WS	(1933)
	PR8	(1934)
	FMI	(1947)
Virus B	Lee	(1940)
	Bon	(1947)
Virus C	1233	(1947)

Although it is not known whether or not there has been a continuous variation of strains in the past, study of the antigenic properties of strains which may be isolated in the future is most important, since new strains may suddenly emerge which may have epidemiological significance.

Typing of strains

The report contains instructions to laboratories regarding the collection, preparation, and distribution of specimens; the typing of strains; and the designation of newly isolated strains. It is recommended that each designation include the group to which the strain belongs (A, B, C); the country, State, or large city in which it was recovered; a serial number; and the year of isolation (e.g., A/Ankara/6/51).

Studies on viruses A and B and lists of strains have been published in the *Bulletin of the World Health Organization.*[2]

Standard Diagnostic Procedures

For clinical diagnosis it is necessary to determine only which type of infecting virus is concerned. The complement-fixation test, employing the so-called soluble antigens A or B, will distinguish between the two principal viruses.

[2] *Bull. World Hlth Org.* 1950, **3**, 187; 1952, **5**, 149; **6**, 287, 485

The haemagglutination-inhibition test is relatively more specific than the complement-fixation test and is preferred for the precise determination of types. It requires considerable precautions, however, and is affected by the presence in the serum of non-specific inhibitors.[3] Details regarding these test procedures are found in annexes to the report.

The committee stresses how necessary it is for laboratories to have at their disposal standard reagents for diagnostic tests, and it recommends that WHO study this problem and seek means for its solution.

Control Methods

Vaccines

Past experience has shown that it is possible to reduce the incidence of influenza by means of immunization. However, in the opinion of the committee, influenza-virus vaccination is still an experimental procedure since success or failure is dependent upon a number of different factors which demand further investigation.

The antigen must bear a definite relationship to the type of virus against which protection is desired. It is not possible at present to recommend the selection of particular strains for incorporation in the vaccine—a mixture of types A and B, a vaccine of a single type (monovalent), a mixture of selected strains, etc.—and it is desirable that research on this subject be carried out.

All recent experiments have involved the use of inactivated virus, produced by egg cultivation, suspended in physiological saline or buffer. An emulsion in mineral oil (adjuvant vaccine) has been introduced which seems to result in greater antibody production and to be longer-lasting and effective against a wider range of antigens than a vaccine in saline solution. One advantage of adjuvant vaccine is that it might be able to produce immunity with very small quantities of virus antigen, which might be of critical importance in the rapid production of vaccines during a virulent epidemic of influenza. It should be noted, however, that the safety of the adjuvant vaccine has not yet been proven.

Therapy

At present there is no specific treatment available for influenza virus infections. The most dreaded pulmonary complications are due to the staphylococcus. Influenza virus staphylococcal pneumonia, unlike pneumococcal infections, may be relatively unresponsive to penicillin and other antibiotics. Therefore, high dosage of penicillin at frequent intervals is essential, and treatment must be commenced at a very early stage of illness.

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[3] See *Bull. World Hlth Org.* 1952, 6, 467, 473.

Experience with aureomycin, oxytetracycline,[4] and chloramphenicol is still inadequate for a comparison to be made between their effectiveness and that of penicillin ; but one or the other should, of course, be used in cases of infection which are resistant to penicillin.

Mortality in influenza epidemics probably depends in part upon the character of the virus. The exact measure of success to be expected with any antibacterial agent is therefore somewhat unpredictable.

Measures against severe epidemics

General control measures for combating recent severe epidemics of influenza have been based primarily on standard public-health procedures —restriction of movement of individuals ; avoidance of crowds in cinemas, public meetings, etc.; and provision of extended hospital services. Quarantine measures within a community have not been shown to be of value. On a national level, quarantine would be likely to be effective only on islands or in geographically isolated communities.

The principal obstacle to the use of vaccines in relation to control of epidemics is that of producing them rapidly enough and in a sufficient quantity for widespread use. Otherwise, they offer considerable promise. The committee recommends that WHO undertake a survey of the potential production capacity of influenza vaccines throughout the world.

Notification

Since the spread of an influenza epidemic, which may suddenly assume serious proportions, is very rapid, it is desirable that national health authorities be informed when an unusual number of cases of influenza appears within their territory, a neighbouring region, or a country with which there is frequent contact. The reporting of individual cases, which is appropriate for diseases such as typhoid fever, cannot be applied easily to influenza since many cases escape medical attention. Also, the system of notification varies from country to country : in some, influenza is not a notifiable disease ; in others, only epidemics are reported ; and, in still others, notification of individual cases is compulsory. Thus morbidity figures mean little, and there can be no real comparison of the figures originating in different countries. What is needed is a way in which an abnormal prevalence of influenza (or influenza-like conditions) can be detected promptly and the course of the epidemic followed with the least possible delay. An indication of the incidence of influenza in a region can be readily obtained from local information based upon the daily records of absenteeism in one or more industrial plants, or among public transport workers, or in

[4] Oxytetracycline is the international non-proprietary name for " Terramycin " (see *Chron. World Hlth Org.* 1953, 7, 41).

schools; the number of new insurance claims where social insurance covers the bulk of the population; and the requests for admission to hospital, especially for pneumonia, etc. Several countries have instituted a trial scheme in which a selected sample of practitioners voluntarily report to the local health authority the number of cases of influenza-like disease treated daily.

Relevant Activities of WHO

The report indicates what arrangements are provided by WHO for the distribution of information concerning influenza, through its epidemiological information services, network of influenza laboratories, and the World Influenza Centre.[5]

In addition to the previously mentioned activities in which WHO participates, or should participate, it is suggested that the Organization lend its support to the training of an increasing number of laboratory workers specializing in research on influenza, to the rapid exchange of information, and to the publication of informative papers on the diagnosis and treatment of influenza and its complications.

[5] See *Chron. World Hlth Org.* 1951, 5, 51.

Review of WHO Publications

COMPARATIVE STUDY OF HEALTH LEGISLATION : COMMUNICABLE DISEASES IN SCHOOLS

In the report on its first session,[1] the WHO Expert Committee on School Health Services stated : " Communicable-disease control has always been a prime concern of schools and school health workers . . . It is important that schools be prepared to change their regulations as scientific advances are made. Too often time-consuming practices are continued long after they are outmoded." A recent study in the *International Digest of Health Legislation* [2] gives a brief outline of the measures adopted in a number of countries for the prevention of the propagation of communicable diseases in schools. In general, the sources of information are legislative texts promulgated between 1947 and 1951 and published in the *Digest*.

[1] *World Hlth Org. techn. Rep. Ser.* 1951, 30, 11, 12

[2] *Int. Dig. Hlth Leg.* 1952, 4, 169

This study presents, in tabular form, a comparison of the isolation and quarantine measures applied in connexion with 12 communicable diseases in 11 countries and territories. The diseases are chickenpox, diphtheria, dysentery (bacillary), measles, meningococcal meningitis (cerebrospinal fever), mumps, poliomyelitis, rubella, scarlet fever, smallpox, typhoid fever, and whooping cough. The countries covered by the study are Australia, Denmark, France, Lebanon, New Zealand, Switzerland (Canton of Vaud), Tunisia, Union of South Africa, United Kingdom of Great Britain and Northern Ireland, and the USA (States of Iowa and Virginia and New York City).

The measures applied by the States of Iowa and Virginia are those recommended by the American Public Health Association in the seventh edition of its handbook *The control of communicable diseases in man* (1950). As far as France is concerned, reference is made to two series of measures which demonstrate French developments in this field. The first series, taken from the handbook by R. Liège entitled *Pratique médicale scolaire*, published in Paris in 1948, concerns legislation generally in force up to 1950; the second, new legislation enacted since 1950. The *Handbook of communicable diseases for the use of medical officers of schools*, published in London in 1948, is the source of information with regard to the United Kingdom.

School legislation in all the countries in question provides for the quarantine of schoolchildren suffering from communicable diseases and of their contacts, but the period of compulsory isolation and quarantine varies considerably from country to country. In the case of diphtheria, for example, the compulsory period of isolation of the patient ranges from 7 to 30 days; in meningococcal meningitis, quarantine of contacts may last from 8 to 20 days, according to the country.

The divergencies in the legislative provisions are apparent also in the definition of the term " contact ". In some cases, this includes all the persons living in the same household as a patient suffering from a communicable disease; in others, the brothers and sisters who have not " acquired immunity by a previous attack "; and in still others, classmates and teaching staff. Very often, the measures covering contacts differ according to whether the patient has been evacuated or is being nursed at home.

On the whole, it is to be noted that there is a tendency to diminish the rigour of isolation and quarantine measures. In France, for example, the period of isolation for meningococcal meningitis has been reduced from 40 to 20 days, and that for rubella from 16 to 8 days. The reason for this tendency is threefold :

1. There is a growing inclination to fix the period of isolation on the basis of laboratory rather than clinical findings. For example, in so far as diphtheria, meningococcal meningitis, and typhoid fever are concerned,

the legislation in nearly all countries makes bacteriological examination the criterion to be followed : when bacteriological examination gives a definitely negative result, isolation may be discontinued and the child re-admitted to school.

2. The use of sulfonamides and antibiotics has considerably shortened the duration of most of the communicable diseases of childhood and sometimes prevents the infection of contacts. The legislative provisions of several countries mention these drugs—for example, the States of Iowa and Virginia in connexion with bacillary dysentery (treatment of the patient), meningococcal meningitis (treatment of contacts and carriers), and scarlet fever (preventive treatment of contacts).

3. The periods of isolation and quarantine may be shortened—and, in fact, are so shortened—as public-health services, particularly school health services, reach higher stages of organization and development. When a physician and a nurse are attached to a school, the isolation of contacts can be replaced, at least to some extent, by medical supervision at the school.

Even now our knowledge of certain aspects of the communicable diseases of childhood is still inadequate. For example, the lack of exact knowledge concerning incubation periods in part explains the sometimes considerable divergencies in the measures applied to contacts.

Another point of interest is that, in at least one country, legislation has been enacted not in order to fix the period of isolation and quarantine, but in order to advise against such isolation and quarantine. A footnote in the *Digest* article refers to regulations recently issued in the Canton of Aargau (Switzerland) stating that " in the case of rubella, exclusion from school is inadvisable since this disease is preferably to be contracted at an early age ". This viewpoint may be justifiable on the grounds that rubella is dangerous in pregnant women because of its effect on the development of the foetus.

The article in the *Digest* also includes a brief study on compulsory vaccination of children and the ages at which such vaccinations are performed in the various countries. Vaccination against smallpox and immunization against diphtheria are the most frequently prescribed measures. Some countries enforce combined antidiphtheria and antitetanus vaccination, while others recommend a triple vaccination against whooping cough, diphtheria, and tetanus.

GUIDE FOR STUDIES OF NURSING RESOURCES

WHO has recently published a booklet, prepared by a nursing consultant, Miss Margaret G. Arnstein, to aid governments in studying their nursing services and needs. This publication, *Guide for national studies of nursing*

resources,[1] outlines one type of study which will give a general view of the nursing situation in a particular area, point to the most urgent problems, and provide information on which a country may base its plans for nursing services. It suggests methods of conducting the study; questions which might be asked, and ways of obtaining answers to them; and a means of evaluating the adequacy of the existing nursing-education system.

[1] Arnstein, M. G. (1953) *Guide for nationa studies of nursing resources*, Geneva (*Bull. World Hlth Org., Suppl.* 7), 36 pages, price : 1/–, $0.20, or Sw. fr. 0.75. French edition in preparation.

PREVALENCE OF BLINDNESS AND DEAF-MUTISM IN VARIOUS COUNTRIES

In the field of morbidity statistics, information on the prevalence of organic disabilities and defects of a chronic nature which may have considerable economic repercussions is extremely important. A recent article in the *Epidemiological and Vital Statistics Report* [1] supplies data on the prevalence of blindness and deaf-mutism in a number of countries over the past fifteen years or so.

It is recognized that these data are not complete. Population censuses constitute the most common source of information. In fact, in some countries census questionnaires have, since the beginning of the 19th century, included a space in which to indicate whether the person covered by the census-form is suffering from blindness, deaf-mutism, or any other mental or physical handicap. The results are not very comparable from one census to another, and still less so from one country to another.

The prevalence of these infirmities may also be ascertained through morbidity surveys, carried out on a sample basis, which seems to give the most accurate information. In certain countries only a rough estimate of the number of blind and deaf-mute persons is available. It should also be noted that even the definitions of the terms " blindness " and " deaf-mutism " vary from country to country and according to the source of the information.

Blindness is shown to be extremely prevalent in certain territories in Africa and Asia. In Egypt, the 1937 census gave 545 blind persons per 100,000 inhabitants; in Nigeria, the rate of 549 blind persons per 100,000 inhabitants established on the basis of surveys in four areas appears to be below the real figure. The 1931 census in India gave 172 blind persons per 100,000 inhabitants, but a study carried out in 1944 by a special committee showed that the probable rate of blindness in the country was somewhere in the region of 500 per 100,000 persons.

[1] *Epidem. vital Statist. Rep.* 1953, 6, 1

The lowest rates are in America, Europe, and Oceania. In the USA, the 1930 census indicated a blindness rate of 51.7 per 100,000 inhabitants, but an estimate made in 1950 by the National Society for the Prevention of Blindness, which defines blindness as " a visual acuity of 20/200 or less ", put the rate at 173 per 100,000 inhabitants. In the same year, the rate in Belgium was 52.5 per 100,000 inhabitants. In the Netherlands, a special survey carried out in 1948 gave a rate of 47 per 100,000. In England and Wales, the number of registered blind persons is about 179 per 100,000 inhabitants, which is a much higher rate than in most of the other countries of Western Europe.

Blindness seems to be more prevalent in men than in women, except in Mexico and India.

An approximate estimate puts the blind population of the world around 1950 at about 6,576,000 persons.

Less documentation is available on deaf-mutism than on blindness; in fact, there is no information at all in respect to very important areas. There follow data concerning deaf-mutism in certain countries :

Country	*Year* [a]	*Rate of deaf-mutism per 100,000 population*
Australia	1933 C	35
Belgium	1950 S	59
Canada	1941 C	63
Egypt	1937 C	60
England and Wales	1930 E	85
France	1946 C	47
Honduras	1935 C	138
Iceland	1946 C	76
India	1931 C	66
Japan [b]	1947 S	118
Mexico [c]	1940 C	39
Norway	1930 C	53
Scotland	1930 E	87
Union of South Africa (European population)	1936 C	49
USA	1930 C	46

[a] The letter which follows the year indicates the source of the data : C = Census E = Estimate S = Special survey

[b] Population 5-39 years only

[c] Population 12 years of age and over

In all the countries covered by this study, the rate of deaf-mutism is higher in men than in women.

With regard to blind deaf-mutes, 158 were registered in Canada in 1941 and 1,942 in the USA in 1930.

The author of this article states that it is intended only as a preliminary approach to a more detailed study of the prevalence of these and various other infirmities in different parts of the world.

Notes and News

Team of Medical Scientists Sent to Indonesia

A team of thirteen medical scientists from seven different countries is spending April and May in Indonesia, in the latest WHO project to bring medical leaders from abroad into contact with those in a host country. The visiting specialists are conferring with Indonesian colleagues in medical colleges, hospitals, and various health institutions; giving lectures and demonstrations; and participating in surgical operations, ward rounds, and informal discussions. Subjects which are being given particular attention are those related to public health and medical education, with emphasis on the growing importance of preventive and social medicine.

The Chairman of the visiting team is Dr. A. Wallgren, Professor of Paediatrics at the Royal Caroline Institute of the University of Stockholm, Sweden. Other members are : Dr. J. S. Barr, Professor of Orthopaedic Surgery, Harvard University, USA; Mr. E. Boyce, Professor of Public Health Engineering, University of Michigan School of Public Health, USA; Dr. E.W. H. Cruickshank, Professor of Physiology, University of Aberdeen, Scotland; Dr. E. Grasset, Professor of Bacteriology and Public Health, University of Geneva, Switzerland; Dr. E. Grzegorzewski, Professor of Public Health, Director of the WHO Division of Education and Training Services, Geneva, Switzerland; Dr. V. R. Khanolkar, Professor of Pathology, University of Bombay, India; Dr. R. R. Macintosh, Professor of Anaesthesiology, University of Oxford, Great Britain; Dr. O. Olsson, Professor of Radiology, University of Lund, Sweden; Dr. M. L. Rosenheim, Professor of Medicine, University College Hospital Medical School, London, Great Britain; Dr. F. J. Stare, Professor of Nutrition, Harvard University School of Public Health, USA; Dr. A. C. Stevenson, Professor of Social and Preventive Medicine, Queen's University of Belfast, North Ireland; and Dr. H. B. Wulff, Professor of Surgery, University of Lund, Sweden.

WHO Public-Health Group in Egypt

Under the auspices of WHO, a group of public-health specialists visited Egypt in February and March. This group—consisting of Dr. G. Anderson, Dean of the School of Public Health of the University of Minnesota, USA; Professor W. Treuting, Professor of Preventive Medicine at Tulane University, New Orleans, La., USA; and Mr. C. J. Sterling, Sanitary Engineer for the State of Massachusetts, USA—consulted with Egyptian public-health authorities, gave lectures to members of the medical profession and to medical students, and surveyed the existing health services and facilities in Egypt. During their stay, the WHO team members worked with Egyptian specialists who were designated as " opposite numbers "—Dr. Gamal El-Din El-Hefny (public-health administration), Dr. Mohamed Anwar (epidemiology), and Dr. Mahmoud Wasfy, Dr. Hassan Farid Zaghloul, and Mr. M. Agamia (sanitary engineering).

Tuberculosis-Control Centre Opened in Cairo

In early March a new tuberculosis demonstration and training centre was opened in the Bab El-Sharia district of Cairo.[1] This centre, established by the Government of Egypt with the assistance of WHO, is expected to give training in modern techniques in tuberculosis control to doctors, nurses, and other relevant personnel from all the countries of the Eastern Mediterranean Region. It will work in close co-operation with, and utilize

[1] *Chron. World Hlth Org.* 1952, **6**, 315

the facilities and services afforded by, various health institutions and laboratories in and around Cairo.

The new clinic was organized by Dr. J. B. McDougall, former Chief of the Tuberculosis Section at WHO Headquarters, in collaboration with Dr. Abdel Latif Hassan, Director of the Section on Respiratory Diseases of the Ministry of Public Health. It is under the direction of Dr. Abrahim Attwa.

New Adviser for Thailand Yaws-Control Programme

Dr. E. I. Grin, of Yugoslavia, has gone to Thailand to act as WHO senior adviser to the yaws-control programme which has been in progress since 1950. He is replacing Dr. D. R. Huggins, who has been named Regional Adviser on Venereal Diseases and Treponematoses for the WHO Regional Office for the Western Pacific.

Dr. Grin has had considerable experience in the campaign to control endemic syphilis in his native country and has written a monograph on this subject.[2] In Thailand he will work with two other WHO team members—a serologist and a public-health nurse—and with Thai personnel. The campaign is directed by Dr. Leong, of the Thai health services, and is staffed by a team of 235 persons, including ten doctors, more than twenty nurses, laboratory assistants, and other technicians, and more than a hundred field workers specially trained in yaws-control activities.

It has been found that about 13.5% of those examined in the Thailand programme are suffering from yaws. New cases are being discovered and treated at an average rate of 12,000 per month. Resurveys in several districts where mass treatment with penicillin was carried out have shown that the prevalence of the disease has been reduced to an average of 3.8%.

Bilharziasis Control in the Philippines

Plans have been drawn up for the construction of a technical centre on the Island of Leyte, the Philippines, to serve as the headquarters for a six-year pilot project in bilharziasis control. This building will house research laboratories and administrative offices, as well as an aquarium for the study of snails, vectors of bilharziasis. It is estimated that 40 persons will be employed at the centre.

Mr. J. J. Jauregui, public-health engineer, is the first to be appointed of a three-man international team to be provided by WHO for this project. The international group will work with a matching team of experts from the Department of Health of the Philippines.

The aim of the pilot project will be to determine the best method of controlling bilharziasis, which is believed to afflict hundreds of thousands of persons in the Philippines. The length of the project is necessitated by the fact that there is insufficient knowledge concerning practicable and economical means of control of this disease.

Report of WHO/UNKRA Mission to Korea

The report of the WHO/UNKRA (United Nations Korean Reconstruction Agency) Health Planning Mission [3] has indicated that assistance to the extent of up to ten million dollars per year for a five-year period could be used to bring the public-health system in Korea up to the proper standard. This report will serve as the basis for a long-range programme of medical rehabilitation which is being recommended by WHO to the Agent-General of UNKRA.

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[2] See *Chron. World Hlth Org.* 1953, **7**, 4.

[3] *Chron. World Hlth Org.* 1952, **6**, 279

The survey group found that the existing medical education facilities in Korea, suitably reconstructed and re-oriented, are capable of providing a sufficient number of doctors and that Korea is already better supplied with graduate doctors than is most of Asia. The number of nurses, dentists, and auxiliary personnel is inadequate, however; and there is a need for training programmes for public-health nurses, sanitary inspectors, and other essential health workers.

Among the suggestions contained in the report are administrative reforms in the organization of public-health administration, modification of the hospital system and better utilization of the hospital services which are available, the granting of 168 fellowships for medical and related personnel over two years, and rehabilitation of disabled veterans and civilians.

The Mission was headed by Professor G. Macdonald, of the London School of Hygiene and Tropical Medicine. The other members were Dr. W. P. Forrest, Director of the Office of External Relations at WHO Headquarters, and Dr. W. G. Wickremesinghe, Director of Health Services, Ceylon.

WORLD HEALTH ORGANIZATION MONOGRAPH SERIES

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E. I. GRIN

The natural course of endemic syphilis, including its epidemiological, clinical, laboratory and other aspects, has not been adequately described in existing literature. This study represents an important contribution to the limited knowledge on the subject. The environmental factors and their influence on the perpetuation of the infection as an endemic disease and the course of the disease over decades are discussed, and original theories and new considerations are advanced explaining its behaviour in a primitive environment. A description is given of the different stages of the treatment campaign in Bosnia, in which more than 35,000 cases were treated with penicillin and promising results obtained. Dr. T. B. Turner and Dr. D. H. Hollander, of the International Treponematosis Laboratory Center, Johns Hopkins University, have contributed an annex on studies of treponemes from cases of endemic syphilis. The volume is profusely illustrated with maps, figures, and photographs.

English edition only, 1953; 93 pages, 43 figures, bibliography

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No. 12

BCG VACCINATION
Studies by the
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LYDIA B. EDWARDS, CARROLL E. PALMER
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The World Health Organization Tuberculosis Research Office, in collaboration with the Danish Statens Seruminstitut and the International Tuberculosis Campaign, undertook an intensive investigation of basic problems of tuberculosis immunization, with special reference to BCG. The results of the work done during the first three years of the research programme are assembled in this detailed report which, by its unbiased observations and critical analysis, is an important contribution to the understanding of the problems involved in BCG vaccination.

English edition, 1953; 307 pages, 50 figures, 20 tables
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Price : 15/- $3.00 Sw. fr. 12.—